



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.                | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------|-------------|----------------------|---------------------|------------------|
| 10/705,648                     | 11/10/2003  | Lee D. Whetsel       | TI-25741.2          | 6136             |
| 23494                          | 7590        | 07/12/2005           | EXAMINER            |                  |
| TEXAS INSTRUMENTS INCORPORATED |             |                      | WHITMORE, STACY     |                  |
| P O BOX 655474, M/S 3999       |             |                      | ART UNIT            |                  |
| DALLAS, TX 75265               |             |                      | PAPER NUMBER        |                  |
|                                |             |                      | 2825                |                  |

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/705,648

Applicant(s)

WHETSEL, LEE D.

Examiner

Stacy A. Whitmore

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005 and 21 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/10/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## FINAL ACTION

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter referred to as AAPA) in view of West (US Patent 6,173,428).

2. As for claims 15-19, AAPA discloses the invention substantially as claimed, including an IC comprising:

A semiconductor substrate [figs. 1-2];

A functional IP core on the substrate, forming a periphery and having functional input leads and core functional output leads that extend beyond the periphery [figs. 1-2];

Test circuit formed on the substrate within the periphery, including

TDI, TDO, Test clock, TMS, TAP, test data registers, instruction register [figs. 1-2, pg. 7, lines 16-20, 28-33, pg. 8 – 10, especially where the conventional instructions are executed];

The instruction register includes a capture shift update section and a decode section [pg. 10, lines 23-32, where AAPA discloses the conventional 1149.1 instruction register within the TAP as having the decode and capture shift update sections].

AAPA does not specifically disclose an external register present lead connected to the instruction register and extending beyond the periphery of the functional IP core circuits.

West discloses an external register present lead connected to the instruction register and extending beyond the periphery of the functional IP core circuits [col. 4, lines 20-42; fig. 3, col. 5, lines 36-64; fig. 4 and 5; West shows that the TAP controller shifts in the mode selection signals including the external register enable signal "labeled as "user def. registers" in fig. 5]; shifting the contents of the shift register out of the shift register [col. 5, lines 36-64; figs. 3 and 5 show that the register contents are shifted out]; and examining the logical state of the external register present signal in the contents of the shift register shifted out of the shift register [col. 4, lines 20-42; fig. 3, col. 5, lines 36-64; fig. 4 and 5; West shows that the TAP controller shifts in the mode selection signals including the external register enable signal "labeled as "user def. registers" in fig. 5: the logical state of the external register present signal are examined in order to determine the mode of operation of the boundary scan system].

3. In the remarks section of the amendment dated 11/22/2004, applicant argues in substance:

A: Handley nor West disclose an external register present lead connected to the instruction register and extending beyond the periphery of the functional IP core [external register present lead connected to the instruction register and extending beyond the periphery of the functional IP core circuits [col. 4, lines 20-42; fig. 3, col. 5, lines 36-64; fig. 4 and 5; West shows that the TAP controller shifts in the mode selection signals including the external register enable signal "labeled as "user def. registers" in fig. 5].

Examiner respectfully disagrees for the following reasons:

As to A: Applicants arguments with respect to Handley are moot since the rejection is no longer applied. West discloses

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

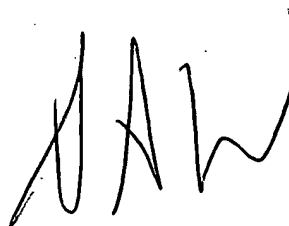
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2825

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore  
Primary Examiner  
Art Unit 2825

A handwritten signature in black ink, appearing to read 'SAW', with a stylized flourish at the end.

SAW

July 11, 2005